Author Index

Abuirmeileh, N.M. *See* Muwalla, M.M., 518
Allen, O.B. *See* DiFrancesco, L., 155
Al-Othman, A.A. *See* Yount, N.Y., 21
Alpers, D.H. *See* Ramasamy, M., 213
Anuradha, C.V. *See* Selvam, R., 653
Atkinson, J.L. *See* Johnston, W.L., 49
Azais-Braesco, V., Macaire, J.-P., Bellenand, P., Robertson, L.W., and Pascal, G. Effects of two prototypic polychlorinated biphenyls (PCBs) on lipid composition of rat liver and serum, 350

Babayan, V.K. *See* Crosby, L.E., 41; Swenson, E.S., 462
Bailey, W.R. *See* Prohaska, J.R., 149
Barnard, D.E., Sampugna, J., Berlin, E., Bhathena, S.J., and Knapka, J.J. Dietary *trans* fatty acids modulate erythrocyte membrane fatty acyl composition and insulin binding in monkeys, 190
Barzanti, V., Maranesi, M., Solaini, G., and Turchetto, E. Dietary lipid effects on microsome fatty acid composition of liver and brain, on liver glucose-6-phosphatase, and on brain 5′-nucleotidase activity in the rat, 305
Bazan, N.G. *See* Marcheselli, V.L., 382
Beal, T. *See* Lewis, C.G., 160
Behrens, W.A. and Madere, R. Kinetics of tissue RRR-α-tocopherol depletion and repletion. Effect of cold exposure, 528
Bellenand, P. *See* Azais-Braesco, V., 350
Belonje, B. *See* Shah, B.G., 585
Berardino, M.B., Roingeard, F.C., and Fukagawa, N.K. Plasma tryptophan and tyrosine concentrations: determination using high performance liquid chromatography and fluorometric detection, 220
Berdanier, C.D. *See* Pan, J.-S., 244
Berlin, E. *See* Barnard, D.E., 190
Bhathena, S.J. *See* Barnard, D.E., 190
Bristrian, B.R. *See* Crosby, L.E., 41; Swenson, E.S., 462
Blackburn, G.L. *See* Crosby, L.E., 41; Swenson, E.S., 462
Blaner, W.S. *See* Davila-Bloom, M.E., 262
Bonner, S.J. *See* Klain, G.J., 578
Borel, P., Martigne, M., Senft, M., Garzino, P., LaFont, H., and Lairon, D. Effect of wheat bran and wheat germ on the intestinal uptake of oleic acid, monoolein, and cholesterol in the rat, 28
Borum, P.R. Carnitine: determination of total carnitine using a radioenzymatic assay, 111
Boyne, R. *See* Chesters, J.K., 107
Broitman, S.A. *See* Fox, E.S., 620
Broughton, K.S. *See* Kinsella, J.E., 123
Brown, D.L. Lysine flux in dry and lactating dairy goats, 371
Burk, R.F. *See* Piao, J.H., 427
Burri, B.J., Neidlinger, T.R., Van Loan, M., and Keim, N.L. Effect of low-calorie diets on plasma retinol-binding protein concentrations in overweight women, 484

Caldwell, J. *See* Hart, R.W., 396
Cantey, L.C. *See* MacLaughlin, J.A., 81
Carroll, J.E. *See* McGuire, B.S., 410
Chancey, V.F. *See* McGuire, B.S., 410
Chao, C.-K., Zeisel, S.H. Formation of trimethylamine from dietary choline by *Streptococcus sanguis* I, which colonizes the mouth, 89
Chen, T.C., Turner, A.K., and Holick, M.F.
A method for the determination of the circulating concentration of 1,25-dihydroxyvitamin D, 320
A method for the determination of the circulating concentration of vitamin D, 272
Methods for the determination of the circulating concentration of 25-hydroxyvitamin D, 315
Chesters, J.K., Boyne, R., and Petrie, L. Effects of growth, food intake, and dietary zinc on diadenosine tetraphosphate concentrations in rats, 107
Cho, Y.-O. *See* Yu, J.Y., 310
Coburn, S.P. *See* Mahuren, J.D., 659
Colli, S. *See* Mosconi, C., 565
Crosby, L.E. *See* Swenson, E.S., 462
Crosby, L.E., Swenson, E.S., Babayan, V.K., Blackburn, G.L., and Bistrian, B.R. Effect of structured lipid-enriched total parenteral nutrition in rats bearing Yoshida sarcoma, 41

daCosta, K.A. *See* Pomfret, E.A., 533; Zeisel, S., 55
Darcey, S. *See* Scholfield, D.J., 362
Davila-Bloom, M.E., Blaner, W.S., and Goodman, D.S. Monoclonal antibody studies of the antigenic determinants of human plasma retinol-binding protein, 262
Dhur, A., Galan, P., Hannoun, C., Huot, K. and Hercberg, S. Effects of iron deficiency upon the antibody response to influenza virus in rats, 629
DiFrancesco, L., Allen, O.B., Mercer, N.H. The effect of fasting time on plasma total cholesterol concentration in mongolian gerbils, 155

Emerick, R.J. and Kayongo-Male, H. Interactive effects of dietary silicon, copper, and zinc in the rat, 35
Silicon facilitation of copper utilization in the rat, 487

Fasulo, J.M. *See* Patton, G.M., 493; Patton, G.M., 549
Fernstrom, J.D. Aromatic amino acids and monamine synthesis in the central nervous system: influence of the diet, 508
Fields, M. *See* Lewis, C.G., 160; Scholfield, D.J., 362; Silverman, S., 98
Finkelstein, J.D. Methionine metabolism in mammals, 228
Firman, J.D. *See* Remus, J.C., 636
Fox, E.S., Thomas, P., Broitman, S.A. Hepatic mechanisms for clearance and detoxification of bacterial endotoxins, 620
Freyer, E.B. *See* Navder, K.P., 640
Fryer, H.C. *See* Navder, K.P., 640
Fukagawa, N.K. *See* Berardino, M.B., 220
Furuichi, Y., Oogida, T., Mitsui, C., Matsuno, M., and Takahashi, T. Nutritional characteristics of a neoglycoprotein, casein modified covalently by glucose, 196

Galan, P. *See* Dhur, A., 629
Galli, C. *See* Mosconi, C., 565
Garcia-Lopez, J.S. *See* Lee, K., 648
Garzino, P. *See* Borel, P., 28
Goodman, D.S. *See* Davila-Bloom, M.E., 262
Gregor, J.L. *See* Kaup, S.M., 542
Gross, A.M. *See* Prohaska, J.R., 149
Gupta, C. *See* Singh, U., 434

Hannoun, C. *See* Duhr, A., 629
Hart, R.W., Turturro, A., Newberne, P.M., Schrager, T.F., Hathcock, J.N., Caldwell, J., Sutton, J.D., and Howes, A.J. Nutritional modulation of xenobiotic metabolism, 396
Hathcock, J.N. *See* Hart, R.W., 396
Hatle, K. *See* Zak, A., 472
Hercberg, S. *See* Dhur, A., 629
Hill, K.E. *See* Piao, J.H., 427
Hilton, J.W. *See* Johnston, W.L., 49
Holick, M.F. *See* Chen, T.C., 272; Chen, T.C., 315; Chen, T.C., 320; MacLaughlin, J.A., 81

Hong, J. *See* Schuette, S., 355
Howard, J.C. *See* McGuire, B.S., 410
Howes, A.J. *See* Hart, R.W., 396
Hrabak, P. *See* Zak, A., 472
Hunt, R.W., Jr. *See* Piao, J.H., 427
Huot, K. *See* Dhur, A., 629

Itoh, H. *See* Matsunobu, S., 167

Janghorbani, M. *See* Schuette, S., 355; Ting, B.T.G., 249
Janghorbani, M., Mooers, C.S., Ting, B.T.G., Smith, M., and Lynch, N.E. Effect of acute selenium restriction on whole body endogenous selenium and selenite-exchangeable metabolic pool in the adult rat, 103
Janghorbani, M. and Ting, B.T.G. Stable isotope methods for studies of mineral/trace element metabolism, 4
Johnston, W.L., Atkinson, J.L., Hilton, J.W., Were, K.E. Effect of dietary tryptophan on plasma and brain tryptophan, brain serotonin, and brain 5-hydroxyindoleacetic acid in rainbow trout, 49

Kaup, S.M. and Greger, J.L. Effect of various chloride salts on the utilization of phosphorus, calcium, and magnesium, 542
Kayongo-Male, H. *See* Emerick, R.J., 35; Emerick, R.J., 487
Keim, N.L. *See* Burri, B.J., 484
Kinsella, J.E., Broughton, K.S., and Whelan, J.W. Dietary unsaturated fatty acids: interactions and possible needs in relation to eicosanoid synthesis, 123
Klain, G.J., Winders, R.L., and Bonner, S.J. Sequential changes in alanine metabolism following partial hepatectomy in the rat, 578
Knapka, J.J. *See* Barnard, D.E., 190
Korte, J.J. *See* Prohaska, J.R., 149
Kuchan, M.J., Santoro, M.F., and Milner, J.A. Consequences of selenite supplementation on the growth and metabolism of cultures of canine mammary cells, 478

Lafont, H. *See* Borel, P., 28
Lairon, D. *See* Borel, P., 28
Lee, C.C. *See* Ting, B.T.G., 249
Lee, K. and Garcia-Lopez, J.S. Noneverted oxygenated rat intestinal segments as a measure of neutral detergent fiber effects on iron absorption, 648
Lei, K.Y. *See* Yount, N.Y., 21; Zhang, J.J., 291
Lewis, C. *See* Silverman, S., 98
Lewis, C.G., Fields, M., and Beal, T. Effect of changing the type of dietary carbohydrate or copper level of copper-deficient, fructose-fed rats on tissue sorbitol concentrations, 160
Lönnerdal, B. *See* Sigman, M., 239; Sigman, M., 572
Lynch, N.E. *See* Janghorbani, M., 103

Macaire, J.-P. *See* Azais-Braesco, V., 350
McGuire, B.S., Carroll, J.E., Chancey, V.F., and Howard, J.C. Mitochondrial enzymes responsible for oxidizing medium-chain fatty acids in developing rat skeletal muscle, heart, and liver, 410
MacLaughlin, J.A., Cantley, L.C. and Holick, M.F. $1,25(OH)_2D_3$ Increases calcium and phosphatidylinositol metabolism in differentiating cultured human keratinocytes, 81
McNamara, D.J. *See* Yount, N.Y., 21
Madere, R. *See* Behrens, W.A.
Mahadevappa, V.G. *See* Piche, L.A., 206
Mahan, D.C. *See* Reinhart, G.A., 592
Mahuren, J.D. and Coburn, S.P. B_6 vitamers: cation exchange HPLC, 659
Maranesi, M. *See* Barzanti, V., 305
Marcheselli, V.L. and Bazan, N.G. Quantitative analysis of fatty acids in phospholipids, diacylglycerols, free fatty acids, and other lipids, 382
Mares, P. *See* Zak, A. 472
Martigne, M. *See* Borel, P., 28
Mason, J.B. *See* Shoda, R., 257
Matsuno, M. *See* Furuichi, Y., 196
Matsunobu, S., Terashima, Y., Senshu, T., Sano, H., and Itoh, H. Insulin secretion and glucose uptake in hypomagnesemic sheep fed a low magnesium, high potassium diet, 167
Mercer, N.H. *See* DiFrancesco, L., 155
Milner, J.A. *See* Kuchan, M.J., 478
Mitsui, C. *See* Furuichi, Y., 196
Molina, M.T., Vazquez, C.M., and Ruiz-Gutierrez, V. Changes in fatty acid composition of rat liver and serum induced by distal small bowel resection, 299
Montet, J.-C. *See* Zhao, X.M., 420
Mooers, C.S. *See* Janghorbani, M., 103
Mosconi, C., Colli, S., Tremoli, E., and Galli, C. Dietary *n*-9, *n*-6 and *n*-3 fatty acids modify linoleic acid more than arachidonic acid levels in plasma and platelet lipids and minimally affect platelet thromboxane formation in the rabbit, 565
Murphy, M.B. Dietary fatty acids and membrane protein function, 68
Muwalla, M.M., and Abuirmeileh, N.M. Suppression of avian hepatic cholesterogenesis by dietary ginseng, 518

Navder, K.P., Fryer, E.B., and Fryer, H.C. Effects of skim milk, skim milk yogurt, orotic acid, and uric acid on lipid metabolism in rats, 640
Neidlinger, T.R. *See* Burri, B.J., 484
Newberne, P.M. *See* Hart, R.W., 396

Olsson, U. Glutathione peroxidase activities during selenium depletion of adult female rats and during selenium repletion of their offspring, 143
Ono, K. *See* Scholfield, D.J., 362
Oogida, T. *See* Furuichi, Y., 196

Pan, Ju-Shin and Berdanier, D.C. Thyroxine effects on parameters of glucose turnover in BHE rats fed menhaden oil, 244
Pascal, G. *See* Azais-Braesco, V., 350
Patton, G.M., Fasulo, J.M., and Robbins, S.J.
Analysis of lipids by high performance liquid chromatography: Part I, 493
Analysis of lipids by high performance liquid chromatography. Part II: Phospholipids, 549
Petrie, L. *See* Chesters, J.K., 107
Piao, J.H., Hill, K.E., Hunt, R.W., Jr., Burk, R.F. Effect of selenium deficiency on tissue taurine concentration and urinary taurine excretion in the rat, 427
Piche, L.A. and Mahadevappa, V.G. Effect of dietary lipid on collagen- and adenosine diphosphate-induced platelet aggregation and thromboxane A_2 synthesis in the rat, 206
Pomfret, E.A., daCosta, K.A., Zeisel, S.H. Effects of choline deficiency and methotrexate treatment upon rat liver, 533
Prohaska, J.R.
Biochemical changes in copper deficiency, 452
Development of copper deficiency in neonatal mice, 415. *See also* Ting, B.T.G., 249
Prohaska, J.R., Bailey, W.R., Gross, A.M., and Korte, J.J. Effect of dietary copper deficiency on the distribution of dopamine and norepinephrine in mice and rats, 149

Ramasamy, M., Alpers, D.H., Saxena, V., and Seetharam, B. Effect of lectins on the cobalamin-protein binding reactions: implications for the tissue uptake of cobalamin, 213
Reeves, P.G., and Saari, J.T. Effect of *cis*-diamminedichloroplatinum (II) on metallothionein induction and trace element metabolism in rats fed different amounts of dietary zinc, 374
Reinhart, G.A., Simmen, F.A., Mahan, D.C., Simmen, R.C.M., White, M.E. Isolation, characterization, and development expression of pig

intestinal fatty acid binding proteins, 592
Reiser, S. *See* Scholfield, D.J., 362
Remus, J.C. and Firman, J.D. Effect of thiamin deficiency on energy metabolites in the turkey, 636
Robertson, L.W. *See* Azais-Braesco, V., 350
Robins, S.J. *See* Patton, G.M., 493; Patton, G.M., 549
Roingeard, F.C. *See* Berardino, M.B., 220
Rosenberg, I.H. *See* Shoda, R., 257
Ruiz-Gutierrez, V. *See* Molina, M.T., 299

Saari, J.T. *See* Reeves, P.G., 374
Saltiel, A.R. Signal transduction in insulin action, 180
Sampugna, J. *See* Barnard, D.E., 190
Sano, H. *See* Matsunobu, S., 167
Santoro, M.F. *See* Kuchan, M.J., 478
Saxena, V. *See* Ramasamy, M., 213
Scholfield, D.J., Reiser, S., Fields, M., Steele, N.C., Smith, J.C., Jr., Darcey, S., and Ono, K. Dietary copper, simple sugars, and metabolic changes in pigs, 362
Schrager, T.F. *See* Hart, R.W., 396
Schuette, S., Hong, J., Vereault, D., Ting, B., and Janghorbani, M. Effect of Mg nutriture on the dynamics of administered ^{25}Mg exchange in vivo in the rat, 355
Schultz, V. *See* Tornheim, K., 172; Tornheim, K., 440
Schultz, L.O. Effect of diabetes on the rat hepatic glucose-6-phosphatase system in endoplasmic reticulum subfractions, 523
Seetharam, B. *See* Ramasamy, M., 213
Selhub, J. *See* Shoda, R., 257
Selvam, R. and Anuradha, C.V. Effect of oral methionine on blood lipid peroxidation and antioxidants in alloxan induced diabetic rats, 653
Senft, M. *See* Borel, P., 28
Senshu, T. *See* Matsunobu, S., 167
Shah, B.G., Trick, K.D., and Belonje, B. Effects of dietary calcium on the metabolism of trace elements in male and female rats, 585
Shinozuka, H. *See* Singh, U., 434
Shoda, R., Mason, J.B., Selhub, J., and Rosenberg, I.H. Folate binding in intestinal brush border membranes: evidence for the presence of two binding activities, 257
Sigman, M. Characterization of transferrin receptors on plasma membranes of lactating rat mammary tissue, 239
Sigman, M. and Lönnerdal, B. Relationship of milk iron and the changing concentration of mammary tissue transferrin receptors during the course of lactation, 572
Silverman, S., Fields, M., and Lewis, C. The effect of vitamin E on lipid peroxidation in the copper-deficient rat, 98
Simmen, F.A. *See* Reinhart, G.A., 592
Simmen, R.C.M. *See* Reinhart, G.A., 592
Sindelkova, E. *See* Zak, A., 472
Singh, U., Yokota, K., Gupta, C., and Shinozuka, H. Choline deficiency activates phospholipases A_2 and C in rat liver without affecting the activity of protein kinase C, 434
Skorepa, J. *See* Zak, A., 472
Smith, J.C., Jr. *See* Scholfield, D.J., 362
Smith, M. *See* Janghorbani, M., 103
Solaini, G. *See* Barzanti, V., 305
Steele, N.C. *See* Scholfield, D.J., 362
Sutton, J.D. *See* Hart, R.W., 396
Swenson, E.S. *See* Crosby, L.E., 41
Swenson, E.S., Crosby, L.E., Babayan, V.K., Blackburn, G.L., and Bistrian, B.R. Metabolic effects of medium chain triglyceride-enriched total parenteral nutrition in rats bearing Yoshida sarcoma, 462

Takahashi, T. *See* Furuichi, Y., 196
Terashima, Y. *See* Matsunobu, S., 167
Thomas, P. *See* Fox, E.S., 620
Ting, B. *See* Schuette, S., 355
Ting, B.T.G. *See* Janghorbani, M., 4; Janghorbani, M., 103
Ting, B.T.G., Lee, C.C., Janghorbani, M., and Prohaska, J.R. Development of the stable isotope tracer approach for studies of copper turnover in the rat and mouse, 249
Tornheim, K. and Schultz, V.
Adenosine diphosphate and adenosine monophosphate: enzymatic spectrophotometric determination, 440
Adenosine triphosphate: enzymatic spectrophotometric determination, 172
Tremoli, E. *See* Mosconi, C., 565
Trick, K.D. *See* Shah, B.G., 585
Turchetto, E. *See* Barzanti, V., 305
Turner, A.K. *See* Chen, T.C., 272; Chen, T.C., 315; Chen, T.C., 320
Turturro, A. *See* Hart, R.W., 396

Van Loan, M. *See* Burri, B.J., 484
Vazquez, C.M. *See* Molina, M.T., 299
Vereault, D. *See* Schuette, S., 355
Vrana, A. *See* Zak, A., 472

Were, K.E. *See* Johnston, W.L., 49
Whelan, J.W. *See* Kinsella, J.E., 123
White, M.E. *See* Reinhart, G.A., 592
Whiting, S.J. Effect of prostaglandin inhibition on caffeine-induced hypercalciuria in healthy women, 201
Winders, R.L. *See* Klain, G.J., 578
Wolf, G. Recent progress in vitamin A research: nuclear retinoic acid receptors and their interaction with gene elements, 284

Yokota, D. *See* Singh, U., 434
Young, D.S. Implementation of SI units for clinical laboratory data: style specifications and conversion tables, 599
Yount, N.Y., McNamara, D.J., Al-Othman, A.A., and Lei, K.Y. The effect of copper deficiency on rat hepatic 3-hydroxy-3-methylglutaryl coenzyme a reductase activity, 21
Yu, J.Y., and Cho, Y-O. Tissue iron content in riboflavin and pyridoxine deficient rats, 310
Zak, A., Hatle, K., Mares, P., Vrana, A., Zeman, M., Sindelkova, E., Skorepa, J., and Hrabak, P. Effects of dietary *n*-3 fatty acids on the composition of cholesteryl esters and triglycerides in plasma and liver perfusate of the rat, 472
Zeisel, S.H. Choline deficiency, 332. *See also* Chao, C-K., 89; Pomfret, E.A., 533
Zeisel, S.H. and daCosta, K.A. Choline: determination using gas chromatography/mass spectrometry, 55
Zeman, M. *See* Zak, A., 472
Zhang, J.J. and Lei, K.Y. Specific binding and uptake of apolipoprotein E-free high density lipoproteins by cultured liver parenchymal cells of copper-deficient rats, 291
Zhao, X.M. and Montet, J.-C. Effects of bile salt supplementation on biliary secretion in estrogen-treated rats, 421.

Subject Index

Acetylsalicylic acid, 201
Adenosine diphosphate, 206
Adenylate cyclase, 68
Adrenergic receptors, 68
Adult rat, 103
Alanine, 578
Anemia, 362
Antigenic determinants, 262
Antioxidants, 653
Aorta, 487
Aortal lipid, 640
apo E-free HDL, 291
Arachidonic acid, 123
Aspirin, 201
ATP, 636
Avian, 518

BHE rats, 244
Bile salts, 420
Binding, 257
Bioavailability, 542
Bovine casein, 196
Brain, 636
Brain tryptophan, 49
Brush border membranes, 257

Caffeine, 201
Calcium, 201, 542, 585
Calorie restriction, 484
Canine mammary cells, 478
Cardiomyopathy, 362
Chloride, 542
Cholestasis, 420
Cholesterol, 21, 420, 518
Choline, 89
Choline deficiency, 434, 533
Clearance, 620
Cobalamin, 213
Cold exposure, 528
Collagen, 206, 487
Concanavalin A, 213
Connective tissue, 487
Copper, 35, 249, 362, 374, 487
Copper deficiency, 21, 98, 149, 291, 415
Corn oil, 565
Cysteine, 427

Depletion, 528
Development, 415
Diabetes mellitus, 653
Diadenosine tetraphosphate, 107
Dietary fats, 28
Dietary fatty acids, 68
Dietary fibers, 28
Dietary lipid, 206, 305
Dietary requirements, 123
Dimethylnitrosamine, 89
DL-buthionine-SR-sulfoximine, 478
Dopamine, 149, 415

Eicosanoids, 123
Elastin, 487
Endoplasmic reticulum, 523
Endotoxin, 620
Enoyl CoA hydratase, 410
Estrogen, 420

Fasting, 155
Fatty acid binding protein, 592
Fatty acids, 299
Female breeders, 143
Fiber, 648
Fish oil, 244, 565
Folate, 257
Food intake, 49, 107
Fructose, 98, 362

Gerbils, 155
Ginseng, 518
Glucose, 160, 167
Glucose-6-phosphatase, 523
Glucose-6-phosphate, 305
Glucose turnover, 244
Glucosylation, 196
Glutathione, 427, 478
Glutathione peroxidase, 143
Goats, 371
Growth, 107

HDL binding and uptake, 291
Health, 123
Heart, 160, 410
HMG-CoA reductase, 21
Human, 484
Human skin, 81
3-Hydroxylacyl-CoA dehydrogenase, 410
5-Hydroxytryptamine, 49
Hypercholesterolemia, 21
Hyperthyroidism, 244
Hypomagnesemia, 167

Influenza virus, 629
Insulin, 167
Insulin binding, 190
Insulin receptors, 68
Intestinal absorption, 28
Intestinal resection, 299
Intestine, 213
Intracellular calcium, 81
Iron, 239, 374, 572, 648
Iron deficiency, 629

Jejunum, 257

Kidney, 160, 427
Kinetic properties, 523
Kupffer cell, 620

Lactation, 239, 371
LDL cholesterol, 518
Lectins, 213
Linoleic acid, 123
Linolenic acid, 123
Lipid, 350
Lipid composition, 299
Lipid metabolism, 155, 592
Lipid peroxidation, 98, 374, 653
Lipopolysaccharide, 620
Liver, 160, 299, 350, 410, 434
Liver lipids, 640
Liver parenchymal cells, 291
Liver tumor promotion, 434
Lysine, 542
Lysine flux, 371
Lysyl oxidase, 362

Magnesium, 167, 542
Mammary gland, 239, 572
Mass spectrometry (inductively coupled plasma), 4
Medium chain triglyceride, 462
Membrane fluidity, 190
Metabolism, 578, 620
Metallothionein, 374
Methionine, 653
Methotrexate, 533
Mg deficiency, 355
Mg status, 355
Mice, 149, 415
Microsomal fatty acids, 305
Milk, 239, 572
Mineral metabolism, 4
Modification, 196
Monoclonal antibodies, 262
Mouse, 249

n-3 fatty acids, 472
n-3 polyunsaturated fatty acids, 123
Na +/K+ ATPase, 68
NDF, 648
Neoglycoprotein, 196
Norepinephrine, 149, 415
5′-Nucleotidase, 68, 305
Nutritional values, 196

Offspring, 143
Olive oil, 565
Ontogeny, 592
Opiate receptors, 68
Oral bacteria, 89
Orotic acid, 640

Pancreas, 160
Parenteral nutrition, 41, 462
Partial hepatectomy, 578
Phaseolus vulgaris, 648
Phosphatidylinositol, 81
Phosphatidylinositol-specific phospholipase C, 257
Phospholipase A_2 and C, 434
Phosphorus, 542
Pig, 592

Pinto bean, 648
Plasma and liver perfusate lipids, 472
Plasma cholesterol, 155
Plasma fatty acids, 565
Plasma tryptophan, 49
Platelet aggregation, 206
Platelet fatty acids, 565
Polychlorinated biphenyls, 350
Potassium, 167
Prostaglandin E_2, 201
Prostanoids, 123
Protein kinase C, 434
Protein metabolism, 41
Pyridoxine deficiency, 310

Rainbow trout, 49
Rat, 21, 143, 249, 410, 629
Rat liver, 533
Rats, 149, 578, 585
Repletion, 528
Retinoids, 262
Retinol-binding protein, 262, 484
Riboflavin deficiency, 310
Ruminants, 167

Selenite, 478
Selenium, 103, 143
Selenium deficiency, 427
Serotonin, 49
Serum, 299, 350, 484
Serum lipids, 640
Silicon, 35, 487
Skeletal muscle, 410
Skim milk, 640
Skim milk yogurt, 640
Small intestine, 592
Stable isotope ^{25}Mg, 355
Stable isotopes, 4, 103, 249
Streptococcus sanguis I, 89
Streptozotocin-induced diabetes, 523
Structured lipid, 41
Superoxide dismutase, 374

Taurine, 427
Thiamin deficiency, 636
Thiolase, 410
Thromboxane, 565
Thromboxane A_2, 206
Tissue iron, 310

D-α-Tocopherol, 528
Trace elements, 4, 35, 585
Trans fatty acids, 190
Transferrin, 572
Transferrin receptors, 239, 572
Transthyretin, 484
Trimethylamine, 89
Turkey, 636

Uptake, 213
Uric acid, 640
Urinary calcium, 201
Urine, 427

Vaccination, 629
Vitamin A, 262
Vitamin E, 98, 528

Wheat bran, 28
Wheat germ, 28

Yoshida sarcoma, 41, 462

Zinc, 35, 107, 374